AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph beginning on page 17, line 6 and bridging to page 18, line 5, with the following amended paragraph:

While I have shown and described only several embodiments in accordance with the present invention, it is understood that the same is not limited thereto, but is susceptible to numerous changes and modifications as known to those skilled in the art. For example, although the method and apparatus of the invention have been explained in connection with calculating physical parameters, and material engineering, of materials where interband states are caused by introduction of alien species into the material, the method and apparatus are useful with materials and in processes wherein interband states are caused by other mechanisms, such as by dislocations or coordination, e.g., bonding defects in the material. Therefore, I do not wish to be limited to the details shown and described herein, but intend to cover all such changes and modifications as are encompassed by the scope of the appended following claims.